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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/848,756 | 05/19/2004 | Kenichi Nishiuchi | 10873.0647USC1 | 4650 |
| 7590 | 03/10/2006 | | | |
| Hamre, Schumann, Mueller & Larson P.C. P.O. Box 2902-0902 Minneapolis, MN 55402 | | | | |
| | | | EXAMINER PATEL, GAUTAM | |
| | | | ART UNIT 2656 | PAPER NUMBER |

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/848,756

Applicant(s)

NISHIUCHI ET AL.

Examiner

Gautam R. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,12 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,12 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/28/05;2/28/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This is in response to amendment filed on 1-27-06.
2. Claims 1-2, 4, 6-, 12, 24 remain for examination. Claim 24 is newly presented for examination.

DOUBLE PATENTING

3. In light of the Terminal disclaimer, double patenting is withdrawn.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi US patent 5,428,597 (hereafter Choi), in view of Satoh et al., US patent 5,428,597 (hereafter Satoh).

As to claim 1, Choi discloses the invention as claimed [see Fig. 3.], including plurality of information layers, a separating layer and sector structure with addresses, comprising:

A plurality of information layers [fig. 3, layers 310, 320, 330 & 340] from which information signals can be reproduced by one-sided irradiation [fig. 3, side showing two arrows pointing down] of light beams [beams λ_1 & λ_2] [fig. 3],

wherein at least the information layers except for the most distant information layer [fig. 3, layer 340] from an incident side [fig. 3, direction of the two arrows] of the light beams are semi-transmissive to the light beams,

a separating layer [fig. 3, layer 312] that is transparent to a wavelength of the light beams is formed between the information layers [col. 7, lines 17-47],

each information layer has a sector structure including a sector address and a data area that are divided in a circumferential direction [inherently present in all disks when you have read and write on the layers] [col. 7, line 14 to col. 8, line 52].

Choi discloses all of the above elements, including several layers of information storage, a separating layer that is transparent to a wavelength. Choi does not specifically disclose that

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each information layer has same number of sector addresses in circumferential direction, and position of these addresses coincides in both the circumferential and radial direction.

However, use of the coincident address position between layers is well known in the art. And more importantly, Satoh clearly discloses:

each information layer has a sector structure including a sector address [ID_{L1} , ID_{L2} etc.] and a data area [DF] that are divided in a circumferential direction [fig. 8], and

position of the sector addresses of the respective information layers coincide in both the circumferential direction and radial direction [fig. 8, tracking and thickness direction] [fig. 3, & col. 5, line 16 to col. 6, line 3].

Both Choi and Satoh are interested in improving the multi-layered disk storage in an optical disk device with minimum management area and plural wavelength recording .

One of ordinary skill in the art at the time of invention would have realized that the system of Choi may be susceptible to crosstalk and it would be advantageous to prevent cross talk between the layers and neighboring tracks.

Therefore, it would have been obvious to have used a coincident structure of addresses and data area in the system of Choi as taught by Satoh because one would be motivated to provide higher density recording on plural disk and reduce the crosstalk between layers and between tracks at the same time and thus improve the quality of the read/write function [col. 1, lines 63-65; Satoh].

4. The aforementioned claim 2, recites the following elements, inter alia, disclosed in Choi:

The plurality of information layers comprise a first information layer [fig. 3, layer 310] that is formed on the first substrate [fig. 3, layer 312] and transmits part of the light beams [λ_2] and a second information layer [fig. 3, layer 320] that is formed on the second substrate [fig. 3, layer 322],

the first information layer and second information layer are bonded together with the transparent separating layer so that the sector position identifiers of the two information layers have certain relationship] [col. 7, line 14 to col. 8, line 52].

As to rest of the claim Satoh discloses:

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position identifier [fig. 8, ID_{L1}, ID_{L2} etc.] is provided in each of the first and second information layers [col. 5, lines 27-46].

5. As to claim 4, it rejected for the similar reasons as claim 1, supra.
6. As to claim 6, it rejected for the similar reasons as claim 4, supra.
7. As to claim 12, it rejected for the similar reasons as claim 1, supra.
8. The aforementioned claim 24, recites the following elements, inter alia, disclosed in Satoh:

the position of the sector addresses of the respective information layers coincide in a radial direction [fig. 8 and col. 5, line 16 to col. 6, line 3].
9. Applicant's arguments with respect to above claims have been considered but are moot in view of the new grounds of rejection.
10. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.


GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

March 3, 2006